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- (71) Applicant(s)

 Leslie de Garis

 Edengrove, Grande Rue, ST.SAVIOURS, Guernsey,
 GY7 9PW, United Kingdom
- (72) Inventor(s)

 Leslie de Garis
- (74) Agent and/or Address for Service
 Paul de Garis
 Taddy Forde House South, New North Road,
 EXETER, EX4 4AT, United Kingdom

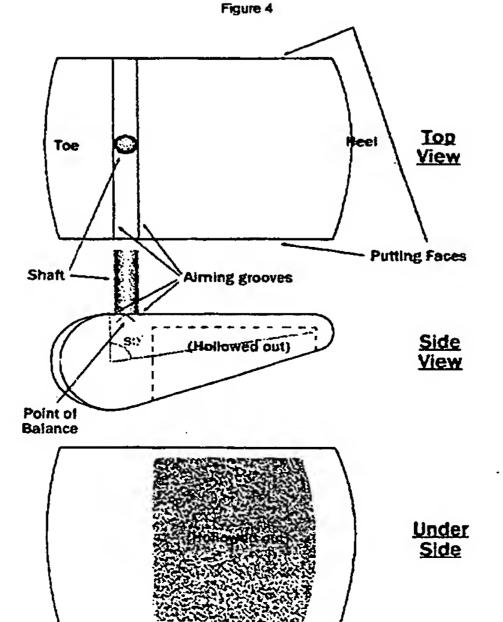
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GB 2273878 A GB 2255287 A GB 2141035 A WO 98/29164 A WO 92/17247 A US 5755625 A US 5649870 A US 5452891 A US 4523758 A US 4411429 A

(58) Field of Search
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(54) Abstract Title Golf putter

(57) A golf putter has the shaft inserted into the head at the point of balance so that the putter can act like a true pendulum when swung at right angles to the putting face(s); the shaft is placed towards one end of the head and the head mass is concentrated in that region, eg by hollowing out of the remainder of the head body. The top of the head is preferably at right angles to the shaft and the head is at its deepest under the shaft; the head preferably has two parallel faces for use by right or left handers, and is so wide that aiming marks can be provided in the top of the head. The putter can be used for conventional style putting, Fig 1 (not shown), but so that in effect the shaft is at the toe end of the putter head; with a shaft extension, Fig 2 (not shown), the putter can be used for broomhandle (feet astride the ball) or pendulum putting, Fig 3 (not shown). For each of these styles, the intended point of contact (or "sweet spot") is where the mass is concentrated immediately below the shaft insertion point.



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Figure 1



Figure 2

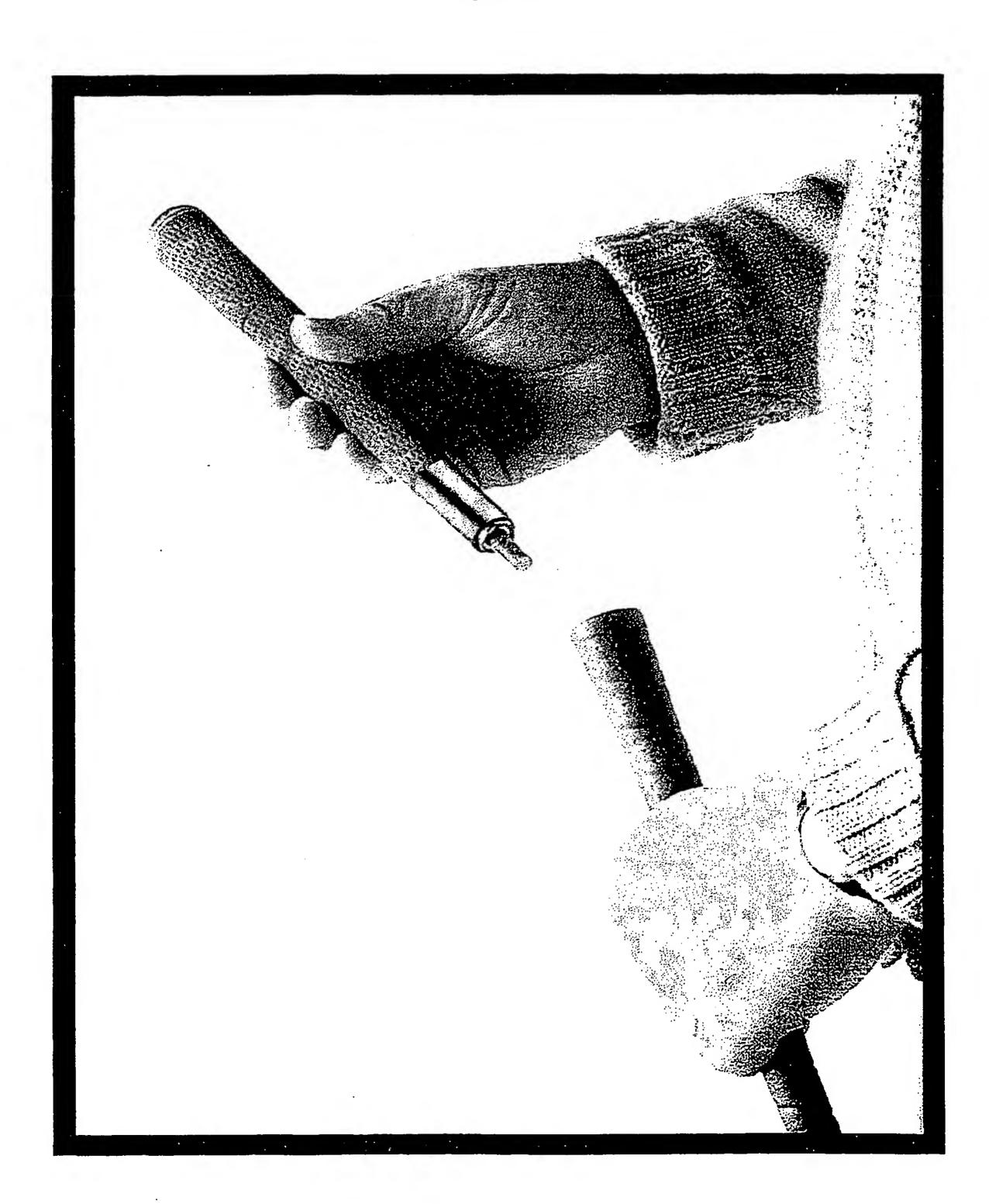
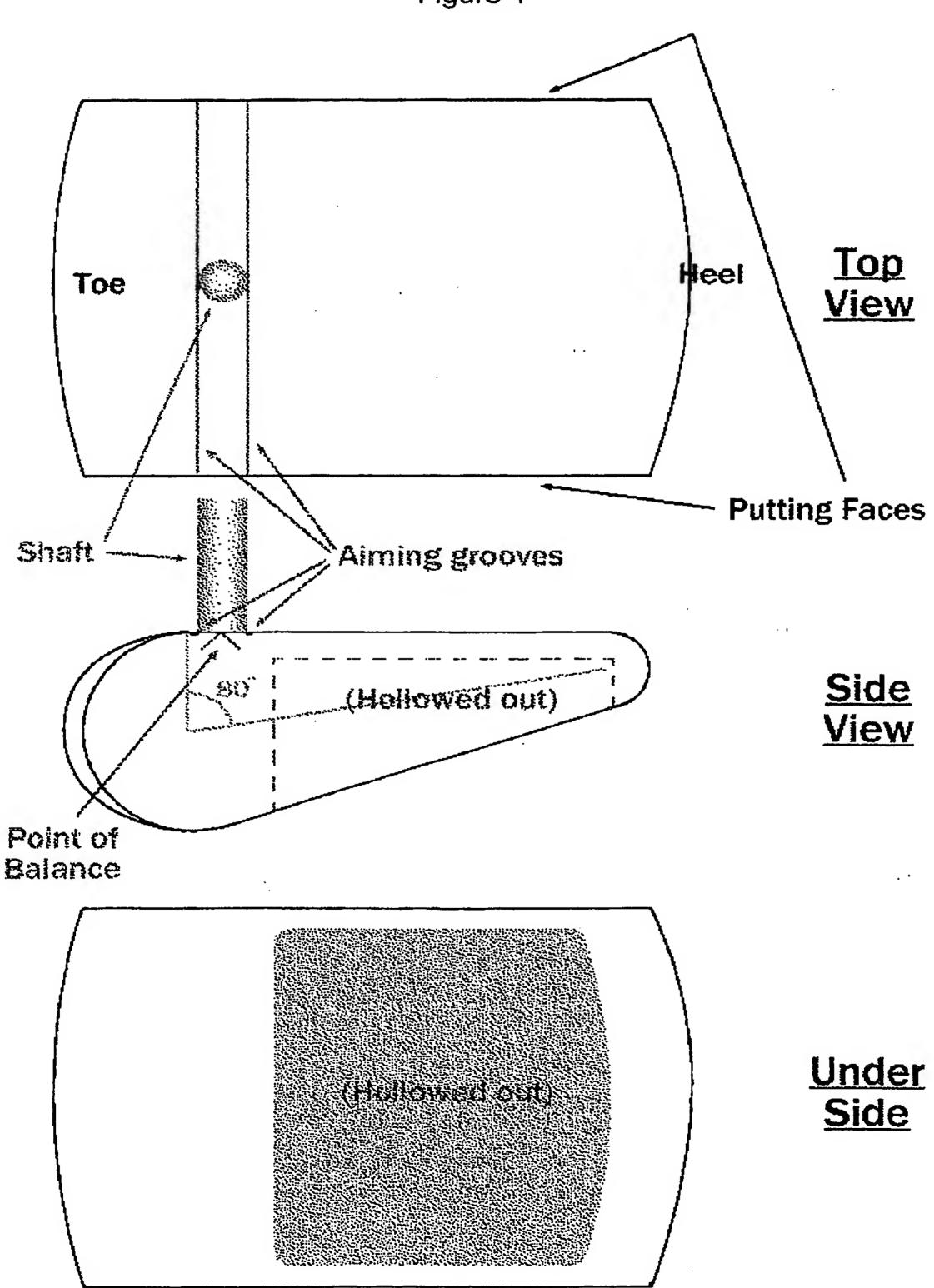


Figure 3



Figure 4



GOLF PUTTER

- 1. For some considerable time golfers have struggled to achieve some measure of consistency and success in the difficult art of 'putting'. Many different putters have been produced but, by and large, the problems lie not only with the golfer but with the way the conventional putter is used. This invention is an attempt to overcome the major physical problems facing golfers and to provide them with a novel alternative method, albeit within the Royal and Ancient Rules of Golf.
- 2. The problems with conventional putting are :-
- (a) the difficulty of achieving a 'straight' backswing and 'straight' follow through. Although the golf professional will teach using the putter like a 'pendulum' this can never be properly achieved because of the necessary 10° angle between shaft and head (R. and A. Rule book Appendix II I.d.(i)). With the best will in the world the swing will want to form an arc around the body thus a 'straight' backswing and follow through has to be 'manufactured' by the golfer.
- (b) the difficulty of achieving an accurate 'line of sight'. The eyes see a line to the aiming point which is different to that of the ball to the aiming point (parallax error). The difficulty is compounded by the fact that the eyes are not facing the line of sight required.
- (c) the difficulty of 'putting' across the body. Professional golfers (right handed) do not like left to right putts and vice versa.
- 3. This invention addresses all these problems and provides an alternative method of 'putting'.
- The Putter, when suspended from the end of the shaft, has been designed to hang vertically. The shaft has been inserted in the head at the point of balance and therefore hangs at right angles to level ground. When swung the Putter will swing like a true pendulum and because of the unusual positioning of the shaft (at the 'toe' end of the head) the heel will be well clear of the ground. The nearest point of contact to the ground will be almost directly under the shaft, thus, on making a stroke with the shaft vertical (croquet style Page 7 Fig 3) inadvertent contact with the ground will be minimal. Reference to Page 8 Fig 4 will show that the head is 'hollowed' out resulting in most of the mass of the Putter being concentrated directly under the shaft almost in the form of a cylinder. A solid strike of the ball at the 'sweet spot' (the point of contact below the shaft) results and because of the true pendulum action and the method of use (see Page 7 Fig 3) the three problems outlined in para 2 a.b.c. are overcome.
- The head of the putter is so designed that it has two identical faces thus it can be used right- or left-handed. Because of its width (Page 8 Fig 4) generous aiming lines can be etched on the top surface which as can be seen is at right angles to the shaft thus presenting the golfer with a perfect flat face when putting 'croquet' style.

 6.

The putter will be provided with a conventional length putter shaft but will have the

facility of being lengthened by means of a screwed-in extension (see Fig 2) thus it can be used in several ways, notably conventionally (see Fig 1) or in the way shown in Figure 3. (croquet style). It can also be used in the manner known as the 'broomhandle', with the golfer standing astride the line of sight and the shaft almost directly under the chin.

7.

- (a) The putter head will be made of metal
- (b) The shaft will be made of steel and the grips (including the extension) of fully rounded material
- (c) To achieve a satisfactory 'pendulum' action the putter is heavy almost twice the weight of conventional putters (approx 900gms)

8.

- (a) Figure 1 shows the general view of the putter fitted with a conventional shaft
- (b) Figure 2 shows how the screwed-in extension to the shaft will be fitted
- (c) Figure 3 shows how the putter is used with the extension fitted. It will be observed that by making use of the putters' true pendulum action the problems outlined in Para 2 are overcome. There is no 'arc' around the body (Para 2(a)). The 'line of sight' is directly over the ball (Para 2(b)) and the problem of left to right putts does not arise (Para (2c))
- (d) Figure 4 gives detail of the head of the putter

CLAIMS

This is a Putter which, when suspended from the end of the shaft, hangs at right angles to level ground and is balanced to act like a true pendulum when swung at right angles to the putting face(s). With the shaft inserted, unusually, at the toe end of the head where most of the mass is concentrated, a small but effective hitting area (the sweet spot) presented with minimal inadvertent contact with the ground (Page 1 Para4) is achieved. With the top surface of the head being at right angles to the shaft and given the width of the head (Page 8 Fig 4) generous aiming lines presented flat to the golfer are obtained for both right- or left-handed use. The variable length shaft allows for multi-use and it is claimed that this combination of factors represent a novel departure from the accepted methods of putting and is therefore original.

Amendments .o the claims have been filed as follows

- 1. A golf putter wherein a straight shaft is inserted towards one end of the head, the head having its centre of mass concentrated beneath the shaft insertion point so that the putter swings at right angles to the putting face like a true pendulum when suspended vertically, the top surface of the head being at right angles to the shaft at least at the shaft insertion point, the head being shaped so that the greatest depth of the head is immediately below the shaft insertion point and the head having two identical flat striking surfaces to allow for use by right or left-handed players, wherein also the putter is provided with an extension to the shaft to enable the putter to be converted from use in a conventional putting style to use in a broomhandle or pendulum style of putting.
- 2. A putter as claimed in claim 1 wherein the top surface of the head is wide and aiming marks are etched into said surface.
- 3. A putter as claimed in claims 1 or 2 wherein at least part of the head which is not directly under the shaft insertion point is hollowed out.
- 4. A putter as claimed in any of claims 1 to 3 wherein the weight of the putter is nearly twice that of a conventional putter.







Application No:

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Claims searched:

1

Examiner:

Roland Whaite

Date of search:

11 May 2001

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Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): A6D (D23B)

Int Cl (Ed.7): A63B (53/00, 53/02, 53/04)

Other: Online: EPODOC JAPIO WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 2273878A	LAWRENCE whole document noting particularly page 3, lines 13 to 18	1
X	WO 98/29164A	SHANAHAN whole document relevant	1
X	WO 92/17247A	SCHÖN see particularly Figure 3	1
X	US 5755625	JACKSON whole document relevant	1
X	US 4411429	DREW & SWIFT whole document relevant	1
X	GB 2255287A	WALKER whole document relevant	1
X	GB 2141035A	BURNETT & Co see particularly Figures 7 and 8	1

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- P Document published on or after the declared priority date but before the filing date of this invention.
- E Patent document published on or after, but with priority date earlier than, the filing date of this application.

X Document indicating lack of novelty or inventive step

Y Document indicating lack of inventive step if combined with one or more other documents of same category.







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Claims searched:

1

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Date of search:

Roland Whaite

11 May 2001

Category	Identity of document and relevant passage			Relevant to claims
X	US	4523758	GUENDLING see particularly Figures 1 and 3	1
X	US	5649870	HARRISON whole document relevant	1
Х	US	5452891	THOMAS whole document relevant	1

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